

(a) encodes a polypeptide [having] comprising the full length amino acid sequence set forth in SEQ ID NO:2; or

(b) is [the complement of] completely complementary to the nucleotide sequence of (a) [; or

4B1 (c) hybridizes under highly stringent conditions to the nucleotide molecule of (b) and encodes a naturally occurring ALK-7 polypeptide].

~~Please cancel claims 6 and 7, without prejudice to or disclaimer of the subject matter contained therein. .~~

9. (TWICE AMENDED) A recombinant cell comprising [a] an isolated, enriched or purified nucleic acid molecule encoding either the [ALK-7] polypeptide according to Claim 2, Claim 23 or Claim 24 or the [ALK-7] polypeptide according to Claim 2, Claim 23 or Claim 24 fused to a [non-ALK-7] second polypeptide.

23. (AMENDED) [A] An isolated, enriched, or purified nucleic acid molecule [encoding an ALK-7 polypeptide, wherein said nucleic acid molecule comprises] comprising a nucleotide sequence that

4B3 (a) encodes [an ALK-7] a polypeptide [having] comprising the full length amino acid sequence of the sequence set forth in SEQ ID NO:2, except that it lacks one or more, but not all, of the following segments of amino acid residues of SEQ ID NO: 2: 1-25, 26-113, 114-493, [193-489] 137-493 or 193-483;

(b) is [the complement of] completely complementary to the nucleotide sequence of (a);

(c) encodes a polypeptide [having] comprising the amino acid sequence set forth in SEQ ID NO: 2 from at least one but not all of amino acid residues 1-25, 26-113, 114-493, [193-489 or] 137-493 or 193-483 of SEQ ID NO:2; or

(d) is the complement of the nucleotide sequence of (c).

24. (AMENDED) [A] An isolated, enriched, or purified nucleic acid molecule [encoding an ALK-7 polypeptide, wherein said nucleic acid molecule comprises] comprising a nucleotide sequence that

(a) encodes a polypeptide [having] comprising the full length amino acid sequence set forth in SEQ ID NO:2, except that it lacks one or more, but not all, of the domains selected from the group consisting of a signal peptide domain, an extracellular region, a transmembrane domain, a cytoplasmic domain and a catalytic domain; or

(b) is [the complement of] completely complementary to the nucleotide sequence of (a).

25. (AMENDED) The nucleic acid molecule of Claim 2, Claim 23 or Claim 24, further comprising a nucleotide sequence that encodes a [non-ALK-7] second polypeptide, wherein said [non-ALK-7] second polypeptide is fused to [the ALK-7] said polypeptide.

26. (AMENDED) The nucleic acid molecule of Claim 2, Claim 23 or Claim 24, wherein said nucleic acid molecule further encodes a GST-fusion protein.

27. (AMENDED) An isolated, enriched or purified nucleic acid molecule [encoding an ALK-7 polypeptide corresponding to] comprising the nucleotide sequence set forth in SEQ ID NO:1.

In claim 28, ~~first line, after "The"~~ and before "nucleic acid" please insert --isolated, enriched, or purified--.

In claim 32, line 1, please delete "mammilian" and insert therefor --mammalian--.

35. (AMENDED) An isolated, enriched or purified nucleic acid molecule [encoding an ALK-7 polypeptide, wherein said nucleic acid molecule comprises] comprising a nucleotide sequence that encodes a polypeptide [having] comprising the full length amino acid sequence set forth in SEQ ID NO:2, except that

said [ALK-7] polypeptide is truncated and signaling incompetent and/or dominant negative.

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36. (AMENDED) The nucleic acid molecule of Claim 35, wherein said truncated [ALK-7] polypeptide is [ALK-7DN] obtained by insertion of an HA-tag at position 230 of the amino acid sequence set forth in SEQ ID NO:2.

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37. (AMENDED) [A] An isolated, enriched, or purified nucleic acid molecule encoding a constitutively active [ALK-7TD] polypeptide, wherein said nucleic acid molecule comprises a nucleotide sequence that encodes a polypeptide [having] comprising the full length amino acid sequence set forth in SEQ ID NO:2, except that said amino acid sequence contains an Asp at position 194 of SEQ ID NO:2 instead of a Thr.

Please add the following new claims:

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--38. (NEW) An isolated, enriched or purified nucleic acid molecule which encodes a naturally occurring polypeptide and hybridizes to the nucleic acid molecule of claim 2 under hybridization conditions at least as stringent as the following: hybridization in 50% formamide, 5X SSC, 50 mM NaH₃PO₄, pH 6.8, 0.5% SDS, 0.1 mg/mL sonicated salmon sperm DNA, and 5X Denhart solution at 42 °C overnight; and washing with 0.2X SSC, 0.1% SDS at 45 °C at least twice, wherein the nucleic acid molecule of claim 2 comprises the nucleotide sequence that is completely complimentary to the nucleotide sequence that encodes the polypeptide comprising the full length sequence set forth on SEQ ID NO:2.

39. (NEW) The nucleic acid molecule of claim 38, wherein said hybridization conditions are at least as stringent as the following: hybridization in 6X SSC, 1X Denhart solution, 0.1% SDS, 0.1 mg/mL denatured, fragmented salmon sperm DNA, and at 65 °C overnight; and washing with 0.1X SSC, 0.1% SDS at 65 °C.